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A Market Based Approach to Maintaining Systemic Stability

Experiences from New Zealand

SUOMEN PANKIN KESKUSTELUALOITTEITA • FINLANDS BANKS DISKUSSIONUNDERLAG

Suomen Pankki
Bank of Finland
P.O.Box 160, SF-00101 HELSINKI, Finland
☎ + 358 0 1831

David G. Mayes

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Abstract

As a response to the concerns over the scale of banking failures in several OECD countries over the last decade, this paper explores the advantages of the new market disclosure regime that was implemented in New Zealand in 1996. It finds that, although New Zealand has many special features which make the new regime particularly suitable there, all the main principles can be applied elsewhere in the OECD, even in the context of current EU legislation. These include: ensuring quality of corporate governance of those financial institutions wishing to be registered as banks, with high accounting and independent auditing standards; public disclosure of substantial information about the risks individual banks face so that market disciplines can be applied - including extending Value at Risk measurement to the whole of the banks' activities; placing the responsibility of the prudential operation of each bank on its directors and management, with penalties and financial liability for false statements; avoiding putting taxpayer funds at risk, by making it clear that no bank is too big to fail and focusing the role of supervisors on ensuring that they have the power to step in and prevent adverse consequences to the system as a whole when a bank gets into difficulty. By these means, the moral hazard inherent in bank supervision and the costs of supervision can be significantly reduced.

Keywords: banking supervision, market discipline, systemic stability

Markkinaehtoinen lähestymistapa rahoitusjärjestelmän vakauden ylläpitoon: Kokemuksia Uudesta Seelannista

Suomen Pankin keskustelualoitteita 18/97

David G. Mayes
Tutkimusosasto

Tiivistelmä

Viimeisen vuosikymmenen pankkikriisit ovat herättäneet huolestumista monissa teollisuusmaissa. Tässä raportissa tarkastellaan Uudessa-Seelannissa vuonna 1996 käyttöön otetun, julkistamisperiaatteeseen nojautuvan pankkivalvontajärjestelmän etuja. Vaikka Uudella-Seelannilla on monia erityispiirteitä, jotka tekevät uudesta järjestelmästä juuri sille erityisen soveliaan, soveltuvat järjestelmän kaikki pääperiaatteet muuhunkin OECD-alueeseen, myös nykyisen EU-lainsäädännön yhteyteen. Nämä periaatteet ovat seuraavat:

1) yritysjohdon kontrollin laadun varmistaminen ja laadukkaat laskentatoimen ja riippumattoman tilintarkastuksen standardit rahoituslaitoksissa, jotka haluavat pankkitoimiluvan
2) markkinakurin edellyttämän konkreettisen informaation julkistaminen yksittäisten pankkien riskinotosta; informaatioon on sisällyttävä pankkien koko toimintaa koskevat value-at-risk-laskelmat
3) pankkien johdon ja hallinnon pitäminen vastuullisina pankkien liiketoiminnan asiaankuuluvasta varovaisuudesta; tähän kuuluvat rangaistukset ja taloudellinen vastuu virheellisistä tiedoista
4) veronmaksajien varojen vaarantamisen välttäminen antamalla ymmärtää, että mikään pankki ei ole liian iso kaatumaan, ja keskittämällä valvontaviranomaisten toimet sen varmistamiseen, että ne voivat puuttua asioihin ja estää koko rahoitusjärjestelmän kannalta haitalliset seuraukset yksittäisen pankin joutuessa vaikeuksiin.

Näillä keinoin voidaan merkittävästi vähentää pankkivalvontaan liittyvää moraalikatoa ja valvonnan kustannuksia.

Asiasanat: rahoitusmarkkinoiden valvonta, markkinakuri, järjestelmän vakaus

Contents

Executive summary

In 1996 New Zealand implemented a new system of banking supervision following a four year period of review. This new system has attracted considerable international interest as it represents a major step away from the prescriptive and intrusive systems that have normally been implemented elsewhere. It is an innovative response to the unfortunate fact that in recent years there have been substantial bank failures in Scandinavia, Japan, the United States and the United Kingdom, among many other countries.

The principal feature of the new system is that it puts the responsibility for the prudent management of banks firmly on the directors and management of the banks themselves. It makes it the responsibility of the supervisor to concentrate on the stability of the financial system as a whole, not on the viability of any individual bank. Under this view, the 'moral hazard' present in banking systems should be reduced and taxpayers' money should not be put at risk. Individual banks should expect to fail if they become insolvent, whatever their size.

This system therefore entails a network of incentives to ensure that appropriate attention is paid to the management of risk by bank shareholders, directors, management, depositors, analysts and competitors. These incentives are applied by an extensive regime of quarterly disclosure of the banks' assets, liabilities and exposure to risks, backed up by an attestation by all the directors including the nonexecutive directors which each bank is required to have, that the bank is applying appropriate risk management procedures. Directors are liable to stiff fines and periods of imprisonment for false or misleading statements and have unlimited personal civil liability for losses incurred by others as a result of these statements. While the Reserve Bank has set out a basis it finds acceptable for measurement of Value at Risk the registered banks are allowed to implement adequate schemes better adjusted to their specific businesses. The pressure on banks to run themselves well will come from depositors, who can take their funds elsewhere, from analysts and from competitors, who will be eager to point out items of relative weakness.

However, the system does not rest on disclosure alone. It has three principal pillars of which disclosure so that market disciplines can be applied is only one. The second is that the structure, ownership and management of the banks should be such as to encourage prudential behaviour. There is thus a series of wide-ranging prior conditions that have to be met before a bank can be registered, relating to capital adequacy as laid down by the Basel criteria, size, standing and corporate governance. Lastly the Reserve Bank has extensive powers to act swiftly and effectively in a crisis, including the ability to place an insolvent bank under statutory management.

New Zealand, being a small country, with a small number of banks, almost all of which are foreign-owned and undertake only limited business overseas, is not typical of many of the other OECD countries. In particular it is unusual in having no deposit insurance. However, while having deposit insurance may limit the bite of the market discipline it does not invalidate the applicability of any of the main principles. These principles can be readily applied in the EU countries, consistent with their existing directives, including those on capital adequacy and protection of depositors. Indeed the idea that market discipline can place a substantial incentive on banks to run themselves prudently will have a significant appeal as regulators struggle to keep pace with the rapid internationalisation of banking operations and the rapid rate of innovation of financial products and IT systems.

Yhteenveto

Vuonna 1996 Uusi Seelanti otti käyttöön uuden pankkivalvontajärjestelmän neljän vuoden valmistelujakson jälkeen. Uusi järjestelmä on herättänyt huomattavaa kansainvälistä mielenkiintoa, koska se eroaa selvästi yleensä muissa maissa käytetyistä ohjaavista ja pankkien toimintaan puuttuvista järjestelmistä. Uuden Seelannin järjestelmä on innovatiivinen vastaus viime vuosina monissa maissa kuten Pohjoismaissa, Japanissa, Yhdysvalloissa ja Iso-Britanniassa esiintyneisiin merkittäviin pankkikriiseihin ja -konkursseihin.

Uuden järjestelmän tärkein piirre on, että siinä vastuu pankkien luotettavasta johtamisesta on selvästi pankkien omalla johdolla ja hallinnolla. Järjestelmässä valvojan asiana on keskittyä rahoitusjärjestelmän vakauteen kokonaisuutena, eikä yksittäisten pankkien elinkelpoisuuteen. Tällöin pankkijärjestelmissä esiintyvän "moraalikadon" pitäisi vähentyä ja veronmaksajien varojen ei pitäisi olla vaarassa. Yksittäisten pankkien olisi voitava mennä nurin niiden koosta riippumatta.

Markkinaehtoiseen järjestelmään kuuluu kannustinten verkosto, jolla varmistetaan, että pankkien omistajat, johtajat, hallinto, tallettajat, analyytikot ja kilpailijat kiinnittävät asianmukaisesti huomiota riskien hallintaan pankeissa. Nämä kannustimet syntyvät laajassa, neljännesvuosittaisessa pankkien varojen, velkaojen ja riskitilanteen julkisessa raportoinnissa, jota tukee kaikkien johtajien - (myös ulkopuolisten johtajien, joita pankeilla on oltava) kirjallinen vakuutus sitä, että pankki soveltaa asianmukaisia riskinhallintamenetelmiä. Vääristä tai harhaanjohtavista raporteista seuraisi johdolle ankaria sakko- tai vankeusrangaistuksia; johdolla on myös täysi vahingonkorvausvastuu väärien tietojen muille aiheuttamista vahingoista. Vaikka Uuden Seelannin keskuspankki on määritellyt perusteet, joilla riskialtistumista mittaavia Value-at-Risk laskelmia voidaan sen mielestä suorittaa, pankit voivat halutessaan käyttää myös muita riittäviä järjestelmiä, jos ne vain soveltuvat paremmin niiden liiketoiminnan luonteeseen. Uuden Seelannin järjestelmässä pankkeihin kohdistuva paine hoitaa liiketoimintaansa kunnolla tulee tallettajilta, jotka voivat siirtää varansa muualle, sekä analyytikoilta ja kilpailijoilta, jotka ovat luonnollisesti kärkkäitä osoittamaan toiminnassa esiintyviä heikkoja kohtia.

Järjestelmä ei kuitenkaan perustu vain tietojen julkistamisperiaatteeseen. Sillä on kaikkiaan kolme pääpilaria, joista markkinakurin vaatima julkisuus on vain yksi. Toinen pääpilari on, että pankkien sisäisen rakenteen, niiden omistuksen ja hallinnon pitäisi olla sellaisia, että ne rohkaisevat luotettavaan toimintaan. Niin ollen on asetettu monipuolinen joukko ennakkoehtoja, jotka on täytettävä ennen kuin pankki voi saada toimiluvan. Nämä liittyvät Baselin vakavaraisuuskriteereihin, pankin kokoon, tilaan ja siihen, miten omistajat valvovat pankin johtamista ('corporate governance'). Kolmas pilari on, että Uuden Seelannin keskuspankilla on laajat valtuudet toimia nopeasti ja tehokkaasti kriisitilanteessa. Valtuuksiensa mukaan se voi mm. asettaa vakavaraisuutensa menettäneen pankin viranomaisten hallinnon alaisuuteen.

Koska Uusi Seelanti on pieni maa, jossa on vain vähän pankkeja ja näistä melkein kaikki ovat ulkomaalaisessa omistuksessa eivätkä toimi maan ulkopuolella, sen olot eivät ole monille muille teollisuusmaille tyypilliset. Erityisesti se on poikkeuksellinen siinä suhteessa, että maassa ei ole talletusvakuutusjärjestelmää. Vaikka talletusvakuutuksen olemassaolo saattaakin heikentää markkinakuria, se ei kuitenkaan tee järjestelmän pääperiaatteita mitättömiksi. Näitä periaatteita voidaan suoraan soveltaa myös EU-maihin niissä voimassa olevien direktiivien (kuten vakavaraisuus- ja talletussuojadirektiivien) mukaisesti. Pankkivalvojien kamppaillessa pysyäkseen mukana pankkitoiminnan kansainvälistymisen ja rahoitustuotteiden sekä tietotekniikan kehityksen nopeassa vauhdissa ajatus, että markkinakuri voi antaa pankeille vahvat kannustimet harjoittaa liiketoimintaansa luotettavasti, näyttää varsin houkuttelevalta.

1 Introduction

In recent years there has been increasing discontent with traditional methods of banking supervision. On the one hand banking crises and failures have continued, with difficulties in the Scandinavian countries, the UK, US and Japan among others. On the other, rapid improvements in technology and products and increasing operation across national borders have meant that the operations to be supervised are developing at an incrcasing rate. Supervisors can respond by seeking more information from banks, investing more effort in keeping pace with innovation and technology, and by cooperating more with each other. No doubt this helps, but the costs of supervision rise and those who seek to run excessive risks in the hope of greater returns will still tend to remain one step ahead of an external supervisor.

At the same time, new ideas (or, more accurately, new versions of ideas) have been emerging which seek better incentives for banks to want to run themselves in a way which avoids excess risk taking and reduces the chance of failure or distress. There is a danger in the traditional system that risk-taking will actually be encouraged, first, because the mere existence of close supervision can appear to be a guarantee in itself and, second, because there are implicit and explicit guarantees that depositors will be protected and that banks, particularly the larger ones, will not be allowed to fail. If shareholders, managers and depositors feel themselves more at risk, both financially and for their reputations, they will tend to want manage risk rather better.

Furthermore, many banks have sought to generate their reputation behind a cloak of secrecy, avoiding disclosures for fear that such disclosures will reveal weaknesses. In most other markets, suppliers go far more out of their way to demonstrate their superiority over their competitors by revealing their strengths and adopting voluntary procedures such as quality standards which seek to demonstrate a commitment to excellence. There is no reason why banks should be different in this regard.

Several supervisory authorities have started to revise their procedures in the light of these new ideas and others are contemplating them. In an effort to assist these developments, this discussion paper explains the rationale for the new system and how it operates in the country which has gone furthest in this regard, New Zealand.

In some respects New Zealand has more freedom to act than other OECD countries, so it may not be possible for others to follow some of the detail of the measures that have implemented. EU countries are bound by directives on capital adequacy and deposit insurance, for example. However, all the principles are applicable to other OECD countries and New Zealand's experience shows they can indeed be applied in practice. Examining what has happened in New Zealand indicates that there is an opportunity for other financial supervisors to increase the role of incentives and market disciplines to help reduce the risks both to the banks themselves and to the financial system as a whole. This paper therefore focuses on the transferable lessons in the hope that others will wish to pursue them further and, indeed, adopt them in the future.

2 The role of incentives and market discipline in reducing systemic risks

Following ten years of discussion and consultation, in 1996 the Reserve Bank of New Zealand introduced a new system of banking supervision designed to improve the prudential operation of banks and the soundness of the financial system. The Reserve Bank sought, by imposing requirements for the public quarterly disclosure statements of their health on registered banks, to obtain much more discipline from the market on banks to run their businesses prudentially. Secondly by heightening the role and accountability of the directors of the registered banks in attesting to the veracity of these disclosures it hoped to improve the management of banks, in particular, their identification, monitoring and management of risks.

As by products the Reserve Bank expected to reduce compliance costs for the registered banks and improve their business freedom. Furthermore it expected that this regime would reduce the risk to the taxpayer of ever being called upon to rescue a bank. By eliminating the traditional monopoly of information that supervisors have on the banks' financial condition this should both heighten the public perception that the management and directors of a bank have the sole responsibility for the management of their bank's affairs and assist future governments in resisting the pressures to rescue a bank in distress or insulate its creditors from losses.

2.1 The need for banking supervision

The changes to the system of banking supervision stem from an extended period of revision of the regulation of the company sector and financial institutions in particular. Although the detailed changes resulted from a four year review of banking supervision, which began in late 1991, the basis for change was set out in the mid-1980s and the enabling legislation incorporated in the Reserve Bank Act of 1989. The review and the wholesale changes were motivated by the fact that traditional banking supervision arrangements in other countries, while costly, have not been very effective in forestalling banking crises or identifying banks in difficulty.

While by and large the Reserve Bank would prefer that banks be regulated like other trading bodies, there are some respects in which banks have a special position and hence require more explicit supervision. These include the traditional feature, that banks play a special role in the working of the economy by accepting short-run and very liquid deposits and providing business stability by lending long and hence creating assets which cannot readily be liquidated (George 1996). As a result they are vulnerable in a crisis; yet removing the vulnerability by changing their role would greatly reduce the value of banks to the economy.

Furthermore, banking crises tend to occur at times of overall difficulty for the economy, exacerbated by the fact that, compared to some other financial institutions, the assets underpinning banks' balance sheets, such as property, can be subject to wider swings in value. The appropriate valuation of assets relating to businesses, particularly small businesses, will depend upon private information held by the bank and will be difficult to establish rapidly in a crisis.

There are also particularly large externalities from bank failures. Not only is there the domino effect where a failure in one bank can cause problems for others and undermine the public's confidence in the banking system as a whole but failures in the banking sector will knock on to the rest of the productive economy, reducing activity (Goodhart 1996b).

It is thus important to understand that in making the changes to the system of banking supervision in New Zealand, the Reserve Bank was not washing its hands of its responsibilities for the soundness of the financial system but seeking to exercise them more effectively. The Reserve Bank continues to regulate the system and increase the chance of soundness for the system by

- regulating entry,
- insisting on internationally accepted capital adequacy standards and
- requiring bank structures that create incentives for bank managements to ensure that their bank has good risk management systems.

Disclosure alone is not enough. There is also continuing consultation with the senior management of the registered banks and the Reserve Bank retains a wide-ranging capacity to respond to bank distress or failure where the stability of the banking system is threatened.

At the same time the Reserve Bank is continuing to reduce the risks inherent in the operation of the financial system and, as an example, expects to have RTGS in operation around the end of 1997, which will cover over 90 percent of transactions by value. Proposals for improved arrangements on netting (Zodgekar 1996) are also in progress. Taken together these measures should lessen the exposure for other banks should any particular bank fail or get into difficulties.

However, as explained in Section 3.3.1, although the supervision arrangements are more detailed and comprehensive for banks the same principles regarding the importance of disclosure apply to legislation relating to all trading companies and to other financial institutions in particular. Some parts of the regime are still being developed, such as that for insurance companies.

2.2 Assigning responsibility and reducing moral hazard

One of the Reserve Bank's concerns with the traditional system has been that it blurs the responsibility of the management of the registered bank and that of the supervisor in ensuring that the bank is well run. With intrusive supervision, including site visits, there will be an expectation, among both directors and the public, that if there is something wrong it will be picked up by the supervisors. Furthermore there will be a greater expectation that if, despite the close supervision, a bank fails or gets into difficulty the government will have an obligation to intervene, as in some sense this would imply failure by a public authority in its duty. This introduces a 'moral hazard' that both depositors and those running banks will tend to take greater risks because there is a safety net limiting the adverse consequences of their actions for them.

The more that depositors and bank directors have at risk the more effective are market disciplines likely to be. With the absence of deposit insurance in New Zealand those incentives for the depositor may be rather greater than in most other OECD countries. However, it is not possible, even in these circumstances, to eliminate moral hazard altogether. If the central bank stands ready to prevent a spill-over into the rest of the financial system and retail depositors also form a significant portion of the country's electors there will always be the expectation that some form of safety net exists, however, strong the words denying it are. Even so, the new regime in New Zealand should clearly reduce any moral hazard that did exist.

The OECD (1997) in their recent summary of the issues facing the financial sector put the point very clearly: 'A key and recurrent question is what induced banks to lend so heavily on the basis of real estate collateral particularly in the late stages of booms when prices had reached historically unprecedented levels. The experiences suggest that "moral hazard" incentives arising from deposit insurance or the implicit insurance afforded by the likelihood of state support in the event of failure of a large institution ("too big to fail") encouraged institutions to assume excessive risks (relative to returns that could reasonably have been expected) while lowering incentives for depositors to adequately monitor the risks of banks in which their funds were placed.' p. 27.

They come to a similar conclusion about the appropriate way forward for supervision: 'Financial reform also necessitates fundamental changes in prudential policies, in particular to foster effective market discipline and adequate risk management by financial institutions including strong corporate governance regimes; to improve disclosure and transparency; and to harmonise oversight policies in similar market segments.' pp. 37–38.

2.3 Market discipline through disclosure of information

The quotation from the OECD makes it clear that the appropriate system for reducing risk includes not just disclosure but good corporate governance. However, if there are to be effective pressures from the market they can only come about if the individual bank's actions are transparent and the relevant information is readily available.

Naturally there will be some who view such a change with apprehension. Indeed there may be circumstances where a scheme of open disclosure could pose a disadvantage, for example, when a bank is in temporary difficulties. Under a more closed system the problem would be known only to the supervisor (let us assume) and to the bank itself. The bank might then have time to sort the problem out before the difficulty became publicly known. With public knowledge, depositors and creditors will attempt to protect themselves and that action in itself will worsen the problem, possibly turning a difficulty into failure. The knowledge that a safety net exists might reduce the chance of a 'run' on a bank, as all insured depositors would expect not to lose their money and there would be no need to try to rush to get to the front of the queue.

It is not quite clear whether there is in practice a net disadvantage in these circumstances. There might well be more disadvantages from a system where public knowledge was more limited and hence rumour and misinformation were more prevalent. This could harm banks which did not in fact have difficulties but had disclosed insufficient information to satisfy market fears. The New Zealand approach creates incentives for the bank to present solutions at an early stage and hence reduce the risk of a run on the bank.

In any case the sheer knowledge that disclosure means that the opportunity to cover up problems is very limited may in itself lead the management of banks to act much earlier to head off problems or to implement more effective systems which will prevent such problems emerging in the first place. This in itself will tend to reduce the cost of finance for banks.

It is not of course realistic to expect that every ordinary depositor will be rushing into the nearest branch of every bank, reading the various disclosure statements with enormous care and then making wise and well informed decisions about where to place their funds. It is the financial news media, financial analysts, investment advisers, major creditors and the competing banks who will digest and publish the results of their analysis. Most ordinary depositors will rely on this secondary information and the fact that it will be spread rapidly by word of mouth.

The ability to make comparisons across banks has several advantages. The banks themselves have a twofold interest in each other's performance. First of all they have major transactions with each other through money markets and, second, they want their own positions to be compared favourably with those of competitors. The fear that banks might be able to take advantage of each other's weakness as a result of disclosure does not appear to have been translated into a problem in practice, although their positions are more transparent.

It is already clear from initial experience (Brash 1997) that the financial media and particularly competing banks are scrutinising disclosure statements and there has been some public comment about issues such as the breach of exposure limits.

In any case the point of the system is to have prudently run banks in the first place and the main incentive structure and discipline lies firmly on directors and bank managers whose livelihoods and reputations are at stake if a problem arises. Brash (1997) claims that there are already signs that directors of banks are exercising 'greater scrutiny of their banks' risk positions' (p. 11). Signing-off procedures by management need to be rigorous and transparent if non-executive directors, in particular, are to be willing to sign the quarterly attestation. Furthermore the increased auditing requirement helps provide a greater independent confirmation of the banks' performance.

3 The framework for bank regulation in New Zealand

The changes to bank regulation in New Zealand have been harmonised as part of much wider revision of the regulation of trading activities in the economy. Most importantly the Reserve Bank's disclosure regime has been developed in tandem with the accounting standards for financial reporting (Financial Reporting Standard (FRS) 33). The Companies Office accepts the disclosure documents as meeting their requirements. Hence banks are spared multiple reporting standards within New Zealand. Similarly these standards apply to other institutions so that disclosure is becoming a feature for the rest of the financial sector as well.

3.1 Principles

Bank regulation in New Zealand is covered by a number of very simple principles, which were derived after an extensive review which took place in the early 1990s. The new regime came into full effect from the first quarter of 1996. However, the framework for the Reserve Bank's regulation of the banking system is contained in Part V of the Reserve Bank Act 1989. Sections 67 to 156 cover the registration and prudential supervision of banks out of a total 192 sections in the Act. Indeed one of the main reasons why it has been possible to implement the new regime so successfully is that it has been introduced only after extensive consultation over many years.

The principles supporting the regime can be summarised as follows:

- only financial institutions of appropriate standing and repute can become registered banks
- impediments to entry of qualifying institutions be kept at a minimum in order to encourage competition in the banking system
- that the incentives in the system encourage prudence on the part of registered banks and their customers and that normal market disciplines are not impeded

Thus while outside interest has tended to focus on the disclosure regime which underpins the application of the third of these principles, an important precondition for its success is that there is a screening process to try to ensure that all participating banks are of a high calibre and likely to follow prudential behaviour (section 73 of the Act). Furthermore these principles recognise that competition can bring significant benefits to users of the services provided by registered banks. New Zealand has lower margins and a higher quality and range of services than in some other small countries, which may in part be due to competitive pressure. It is the combination of these three aspects which provides the full flavour of the New Zealand approach.

The series of criteria which the Reserve Bank applies in deciding whether to register a bank in the first place are straightforward but wide ranging. They entail

- that the Reserve Bank satisfy itself that the applicant's business will substantially consist of the borrowing and lending of money, or the provision of financial services, or both
- and that it have regard to:
    - incorporation and ownership structure
    - size of business
    - ability to carry on business in a prudent manner
    - standing of the applicant in the financial market
    - law and regulatory requirements in an overseas bank's country of domicile
    - any other matters prescribed in regulations

These points are developed in section 3.2 below but at this stage it is worth emphasising that these provisions include compliance with the Basel criteria for capital adequacy, restriction of connected lending exposure, separation from the other interests of the owners and adequate internal and accounting controls.

The incentive system to encourage prudent behaviour has two main elements:

- a system of quarterly public disclosure statements and attestation by directors
- the avoidance as far as possible of any implicit guarantees against bank failures or of the protection of creditors. Supervision is aimed at encouraging the soundness and efficiency of the financial system as a whole.

In the event that a bank should fail - and there have been no bank failures in New Zealand in 'living memory' (Ledingham 1995) - the Reserve Bank will seek to minimise damage to the financial system, in a way that does not involve taxpayer funding. The Bank has extensive powers of crisis management under the Act including the power to put registered banks under statutory management (a statutory manager has a broader set of powers than a receiver). This aspect of having a crisis management system which not only has strong powers but seeks to limit moral hazard is a key pillar in the system.

Furthermore, an open system of this form, with pre-commitment to respond in specified circumstances (as Goodhart 1996a puts it), is likely to minimise any possible potential conflict of interest between the supervision and monetary policy functions of the Reserve Bank.

The remaining sections of this part of the paper therefore cover the three main ingredients of the New Zealand system

- conditions for registration
- disclosure statements
- crisis management

3.2 Conditions for registration

In fulfilling the requirement that the Reserve Bank be satisfied that the applicant's business will substantially consist of the borrowing and lending of money, or the provision of financial services, or both the applicant has to set out what business it intends to conduct, including any business through subsidiaries. There are no requirements to provide particular financial services nor any explicit list of which services are deemed to be 'financial'. Financial services are defined by the common practice of other banks in New Zealand and other similar countries. Application would be refused where it was clear that these services were not primarily to be provided in New Zealand. The Reserve Bank does not want to provide a refuge for banks which are seeking to evade the vigour of supervision elsewhere by registering themselves in New Zealand.

3.2.1 Incorporation and ownership structure

The Reserve Bank seeks to ensure that the ownership structure is such that the owners have incentives to monitor the bank's activities closely and influence its activities so as to keep a high level of soundness. This is likely to occur when the owners have a substantial stake in the bank and where they are the first to have to absorb any losses stemming from poor performance.

Furthermore the incentive to encourage sound management will increase if the owners have reputation to lose from any problems which may arise. However, there does need to be sufficient separation between the board of directors and the owners as the interest of the bank and its owners may diverge.

If the application for registration is from an overseas not a local entity, they will have to demonstrate that

- they have bank status in their home jurisdiction
- that the supervision regime in that jurisdiction is adequate or that disclosure requirements or market disciplines exist

Otherwise they will probably be required to incorporate locally. In any event the views of the supervisor of the parent would be sought before granting registration.

3.2.2 Size of business

Locally incorporated banks require minimum capital of NZ$15 million, while the branches of overseas banks are expected to operate off the capital on the parent's total balance sheet, which must exceed that sum.

3.2.3 Ability to carry on business in a prudent manner

For prudence the applicant must meet criteria for

- capital adequacy

  This criterion follows the Basel framework. Thus, at all times, the minimum capital ratio is 8 per cent with a tier 1 capital ratio of 4 per cent for the banking group. However, regard is also paid to any restrictions on access to further capital and the need to hold capital for risks not covered by the Basel framework. Furthermore the applicant must be in a position to disclose information on capital adequacy both for itself and, where applicable, its parent.

  It is worth noting that the Reserve Bank viewed these specific requirements as unnecessary in a disclosure regime but felt they were desirable for international credibility. 'Although the Bank considers that disclosure alone, without minimum requirements, should provide sufficient incentives for banks to at least adhere to the international norm of 8 per cent, it believes that retention of the capital requirement offers benefits in terms of international credibility, at little, if any, marginal cost to banks.' (RBNZ 1995, p.76) However, the Reserve Bank took careful account of international opinion in its consultations before implementing the new regime.

It is interesting that the US Fed (as set out in Kupiec and O'Brien (1995) for example) is adopting an approach where systems operated by the banks themselves may give a better indication of the specific sorts of risks that they face, in particular, because of the ability to take full account of the inter-relationship among risks. The Basel Committee (1997) seems to be moving in this direction.

- loan concentration and risk exposures

  Applicants have to show that they have adequate mechanisms for monitoring and preventing excessive exposure to risks from single parties or sectors and that they will be able to comply with the disclosure requirements in this regard. Otherwise there is a danger that a single party or groups of related parties could bring down the bank.

- separation from other interests of the owners

  (This section does not apply to branches or guaranteed subsidiaries of overseas banks because creditors will have a claim on the assets of the parent.) Applicants are required to have at least two independent directors and a non-executive chairperson in order to ensure that there is a degree of objective scrutiny of:

  - exposure to the parent or related parties
  - exposures to unrelated parties undertaken at the request of the parent
  - other matters where the interests of the bank and parent or management could conflict.

Secondly exposure to related parties (excluding risks layoffs to a parent bank) must be limited to 75 per cent of tier 1 capital and within in this limit, aggregate exposure to non-bank connected parties to 15 per cent of tier 1 capital. In addition, banks must not adopt a constitution which would allow directors to act in the interests of a holding company where to do so would conflict with the interests of the bank in New Zealand to the detriment of creditors.

- internal controls and accounting systems

  For overseas banks these requirements will normally be met by adopting the parent's systems but elsewhere the Reserve Bank will need to be satisfied of the nature of the controls especially in areas outside the bank's normal experience.

The nature of the corporate governance of the bank is thus a key concern in determining its suitability for registration.

3.2.4 Standing of the applicant in the financial market

Unless the institution, executive board members, senior staff or owners have proven good experience in financial markets it is unlikely that the application will be approved. However, there is no 'fitness or properness' test for a bank's directors and senior management. It is the role of the shareholders to appoint directors and of the directors to appoint the senior management. Here the concern is with the standing of the bank as a whole - clearly the presence of a notorious individual in a position of trust would call the organisation into question.

3.2.5 Law and regulatory requirements in an overseas bank's country of domicile

Where the requirements of the parent's supervisors or the legal framework in the home jurisdiction may cause problems in New Zealand the applicant may have to be locally incorporated. (This might include preference for foreign creditors for example.)

3.2.6 Any other matters prescribed in regulations

(Currently none.)

3.3 Disclosure

The quarterly disclosure statements are the key ingredient of the new supervisory regime. Instead of relying on the supervisor to ensure that the appropriate prudential standards are being applied the onus is now on the banks themselves not just to ensure that these standards are being met but to demonstrate to the satisfaction of the public that they are. The important feature of disclosure is its transparency. If the registered bank wishes to maintain the confidence of its depositors and shareholders then it needs to demonstrate that it is running its business prudently. Indeed, since this is a competitive market there is every incentive to try to show that the quality of the bank exceeds that of others. Thus the disclosure statements should:

- sharpen the incentives for the management and directors to ensure sound management - particularly, effective systems to identify, monitor and manage risks
- increase the market's ability to assess and compare the performance and soundness of banks
- strengthen the accountability of management and directors of banks
- provide depositors and other bank customers with improved information with which to determine where they should bank.

The disclosure statement itself (see Table 1 for an example) includes information on:

- the income statement and balance sheet (including a 5 year summary of key financial data)
- directors and their interests
- asset quality and provisioning
- the number of large exposures (including interbank exposures) as measured relative to the bank's equity
- related party exposures as measured relative to the bank's tier one capital
- sectoral exposures
- capital adequacy, including off-balance-sheet items
- market risk exposures
- credit rating (if held).

These statements have to be certified by the directors of the bank on each occasion as being neither false nor misleading. In addition directors are required to provide an attestation that the bank has adequate systems in place to monitor and control risks and that these systems are being properly applied. Should these attestations be found to be false the penalties are severe:

- a fine of up to $NZ25,000
- a jail term of up to 3 years
- unlimited personal civil liability for losses sustained by reason of subscribing to any debt security (including bank deposits) issued by the bank in reliance on false or misleading information contained in a disclosure statement

The statements are subject to external audit twice a year.

3.3.1 The rationale behind disclosure

As far as possible these disclosure statements have been designed to fit with modern accounting practice and the legislation puts the treatment of directors of banks very much on a par with the treatment of directors of other companies that issue securities under the terms of the Companies Act 1993, the Financial Reporting Act 1993, the Securities Act 1978 and Securities Regulations 1983 (Mortlock 1996). Indeed, bringing financial accounting and auditing practices into line were an essential part of ensuring that disclosure statements could be externally verified to a standard that would satisfy shareholders and depositors (and the Reserve Bank as supervisor).

Although the disclosure requirements might seem onerous at first blush, they are designed to do no more than encourage directors to undertake their existing responsibilities conscientiously. It makes directors accountable; it encourages them to be well informed about the activities of the bank and the risks to which it may be exposed. In particular, it encourages them to make sure that the systems in place in thc bank are adequate to monitor and manage those risks.

In taking this last step, the Reserve Bank has sought to get round a problem which entraps more traditional supervision systems, which lay down a set of procedures that should be followed. It is easy to find out whether the bank has actually put the procedures in place but it is very difficult, as an outside observer, to find out how well they are followed and whether it is the spirit of their purpose which has been implemented. The system of incentives encourages directors and managers to satisfy themselves that both the letter and the spirit are being followed as they will be held accountable if there is a problem.

Since these statements should correspond closely to the quarterly information that banks would wish to produce to ensure their own good operation the compliance costs should be reduced compared with other supervisory regimes - although no doubt there are transition costs as the new arrangements are implemented. The Reserve Bank has stopped charging banks for the costs of supervision and banks now have increased business freedom through the reduction of direct controls. The costs of supervision are thus reduced directly in three respects: - the costs to the supervisor are lower, the compliance cost for the bank is likely to be lower and there is likely to be an efficiency gain. Should a crisis occur it is unlikely that the supervisory costs will be much affected but since the intention is to reduce the chance of such a crisis the expected value of these costs should also fall.

Although banks expressed fears of increased costs in advance they have not reported any substantial increases now the regime has bedded in. Much of the information now disclosed is similar to that provided previously in private to the Reserve Bank. Furthermore, anyone, including banks, issuing securities was required by the Securities Commission to produce an extensive Prospectus - an obligation now rescinded for registered banks.

The system is particularly designed to take full advantage of the role of independent directors. (The disclosure statement itself covers conflicts of interest.) Such directors bring a different perspective to the management of the business. This additional and, probably, more objective scrutiny should help ensure that dealings with controlling shareholders and related parties are not contrary to the interests of the bank in New Zealand. They will be particularly concerned to be certain that the risk management mechanisms and internal controls are effective as they are not party to the day-to-day activities of the bank. For example, one would expect that the board would want to have an effective audit committee chaired by a non-executive director (Goodhart 1996a, p. 64, sets out a similar suggestion).

These arrangements will encourage banks to appoint directors who are not only skilled in their own right and have established reputations but who have an incentive to see that the bank's management has the necessary skills and experience. By having these reputational penalties and encouraging a regime which makes early identification of problems more likely it is hoped to provide at least some safeguard against 'go for broke' strategies (Kupiec and O'Brien 1995). That worry is that managers, having breached the criteria for prudence, have no greater downside penalty from following increasingly risky strategies. In the New Zealand regime the penalties for trying to cover up and get through a difficulty may be greater than those from disclosing an impending problem in the first place.

What is being sought here is a 'contract' between the supervisor and the registered bank, where the incentives are such that, for the minimum cost, the bank keeps the risks of imprudent behaviour below some minimum acceptable to the supervisor. (This is analogous at one remove to the sorts of optimal contracts discussed by Diamond (1984), inter alia, between lenders and borrowers, where the borrower is faced by a set of disincentives to fail to produce the required return for the lender.) Registration criteria help screen out high risks and the range of risks to be covered in the disclosure statement help ensure that the identifiable facets of risk are covered. Managing the risk is achieved through a combination of specified minima and pecuniary and non-pecuniary disincentives where the required standards cannot be expressed in any such directly quantitative form. Market disciplines are likely to be more effective than threat of fines and other similar penalties. It is not possible to draw the appropriate line for prudent minima or for the appropriate level of the disincentives with any precision. Furthermore, supervisors wish to avoid conducting any experiments that demonstrate what incentives are insufficient. The Reserve Bank of New Zealand's system is thus not designed to test the margin of adequacy but to operate at a level where risks are low at the best international standards for supervision.

3.3.2 The nature of the disclosure statements

The disclosure statements are published in two forms. A *Key Information Summary* is required to be displayed prominently in every bank branch and is available on demand. As its name implies it contains the core information in the statement presented in a manner that is accessible to the ordinary bank customer. It includes:

- the bank's credit rating (or statement that it does not have one)
- capital ratios
- information on peak exposure concentration, asset quality, shareholder guarantees (if any) and profitability.

The other publication is the *General Disclosure Statement* which contains the full list of information described above in a manner aimed principally at the professional analyst.

These documents can vary fairly substantially between the banks in terms of presentation. The KIS is usually two to four pages in length but the GDSs are much more substantial (ANZ 48 pages, BNZ 66 pages, Countrywide 41 pages, Westpac 52 pages for the six months ended February or March 1997). Table 1 reproduces a short form GDS published by the National Bank for the three months to end March 1997 (this has been chosen simply because it is the shortest).

It is the information on peak exposures that is revealing, compared to the common practice of showing end quarter values, which can be managed much more readily. Furthermore, it is the inclusion of information on market risk for the whole range of the banks' activities which takes the disclosure substantially beyond other regimes.

3.3.3 The treatment of market risks

The Reserve Bank has gone rather further than the Basel accord in requiring disclosure of Value at Risk not just for the banks' trading book but for the whole of their balance sheet (Harrison 1996). It has set out a common framework for the calculation of risk so that banks can be compared and assessed relative to a standard. (Banks can use their own systems to measure exposures provided that this does not generate results materially below those obtained from applying the Reserve Bank's standard.) The market risks cover interest rate, exchange rate and equity exposures. The Basel 'standard model' forms the basis for the assessment, with interest risk decomposed into directional, yield curve and basis risks. Both end of quarter and peak risks during the quarter have to be disclosed.

The Reserve Bank has been opposed to laying down uniform quantitative risks limits. If such limits are to be effective in restricting risk in all normal circumstances they would tend to have to be set rather low, inhibiting some prudent business. While when they are normally set fairly high so as only to exclude imprudent behaviour they will implicitly offer an endorsement of behaviour up to those limits, which could in some circumstances result in the taking on of undue risk. The problems of moral hazard are thus reintroduced and the Reserve Bank has limited such ratios to the minimum number that international standards require.

Similarly, the Reserve Bank does not prescribe particular internal control mechanisms. If it did it would again face the twin dangers: - that such controls might be thought to be adequate in all circumstances and hence allow the emergence of greater risks than banks would be prepared to tolerate of their own volition; that such controls would be felt mandatory and hence their imposition might impose unnecessary costs on some banks, whose business does not require them.

By following this value at risk approach the New Zealand supervision system should be well adjusted to the advances being reported (see Jackson et al. 1996, for example) in bank based systems which can be 'back-tested' for accuracy compared with the unadjusted Basel criteria. By using a disclosure route it is possible for concerns over capital adequacy to be expressed before the bank reaches any specific limit. As Goodhart (1996b) points out there is no material difference between capital adequacy of 8.0 and 7.999 per cent. Triggers for concern should be progressive and take into account an evaluation of the bank's whole business, as well as the wider state of the financial system and the economy as a whole at the time (Benston and Kaufman 1994). Disclosure enables concern to be expressed with varying intensity at any juncture.

3.4 Crisis management

A key feature of the New Zealand regime is that the idea of any implicit guarantee for registered banks should be minimised. Unlike most OECD countries New Zealand does not have any system of depositor protection, even for small retail deposits. Nevertheless, it is impossible to dismiss the idea that the government might step in the event of the failure of a major retail bank, however much the authorities wish to precommit themselves not to act in that manner. The system is designed to permit individual banks to fail, whatever their size, and purely to try to make sure that the knock on consequences for the financial system as a whole are minimised.

It is important to distinguish between liquidity and solvency problems. The Reserve Bank has the power to provide whatever liquidity is necessary to maintain the confidence in individual banks and hence the system as a whole. This guards against the consequences of shocks, either to the economy as a whole or to individual banks, which have a short run adverse effect on liquidity, spilling out into a wider problem. (It would also prevent market participants driving some of their number into difficulty by cornering markets.) However, the Reserve Bank will not provide liquidity to banks which are either insolvent or likely to become insolvent and will instead recommend to the Minister of Finance that the bank be placed under statutory management. Such a recommendation would also be made if a bank in difficulty refused to consult, comply with a direction or behaved in a manner prejudicial to the soundness of the financial system.

The statutory manager has wider powers than a liquidator. There is a moratorium on legal proceedings. The manager can suspend payment on money owing and can convert a branch of an overseas bank into a locally incorporated entity. The statutory manager is subject to direction by the Reserve Bank. The prime regard of the statutory manager is the need to maintain public confidence in the operation and soundness of the financial system and to avoid significant damage to the financial system. However, consistent with that, they are also required to try to resolve the difficulties as soon as possible while preserving the position and maintaining the ranking of creditors' claims.

The more common occurrence will, it is to be hoped, not be crises but breaches of the capital adequacy requirements. Here (RBNZ 1995, p. 78) the Reserve Bank has implemented a version of what Goodhart (1996, p. 647) has described as 'a pre-committed graduated series of responses in face of capital erosion.'

- If tier 1 capital falls below 4 per cent or total capital below 8 per cent of risk-weighted exposures a bank must submit a plan for restoring its capital at least to the minimum to the Reserve Bank and to publish that plan as soon as possible in a disclosure statement.
- The plan would have to include
  - no distributions are made to shareholders till the minimum position is regained
  - no increase in the exposure to a related party from that prevailing at the time of the breach
- If tier 1 capital falls below 3 per cent gross credit exposures must not be increased above the level prevailing at the time of the breach.
- The Reserve Bank can, if necessary, enforce this policy by giving a 'direction' to the bank under the provisions of section 111 of the Reserve Bank Act.

3.5 Developments

The new regime has been in place for less than two years so some refinements are to be expected as both the Reserve Bank and the registered banks gain experience in its operation. Indeed the Reserve Bank announced before the new scheme was implemented that a review would be undertaken in the light of experience.

Some limited changes may occur to eliminate unnecessary differences from the new financial reporting standard, FRS 33, that has now been published. Similarly as international experience with Value at Risk measurement develops some changes here may be expected. There is clearly a problem for banks who have to report to a home country regulator as well as to the RBNZ, using different VaR measures (the Federal Reserve, the Bank of England and the Reserve Bank of Australia are the principal other central banks involved). The problem is worse if the bank is using yet another different model for internal purposes and this could result in an increase in compliance costs. (Even where banks do use a different for internal management, they have chosen to disclose using the RBNZ VaR model, partly for comparability and partly because of the difficulty in explaining a VaR model and its qualities in a disclosure document.)

However, comments thus far do not indicate the need for any substantial changes. The extensive period of consultation dealt with many of the points of prior concern that the banks had raised. Some anomalies remain. Small registered banks, whose failure would have little systemic significance have to make a full return, while large near-banks, whose failure would be of consequence, have less exacting disclosure and risk requirements.

It is not clear whether the Reserve Bank will include users of disclosure documents in their review of the scheme. Rating agencies have welcomed the disclosure but very few General Disclosure Statements have been requested beyond those sent to counterparties and the media.

4 How far is the New Zealand system transferable?

New Zealand is a small country with only 19 registered banks all but one of whom, with a very small market share, are foreign owned. It is thus relatively easy to keep tabs on the whole of the financial system and to be relatively well informed about what if going on. However, it is sometimes argued (see Brash 1997) that New Zealand is to some extent piggy-backing on the more traditional supervision regimes in other countries as home country regulators normally require reports on the whole operations of the banking group, including those in New Zealand.

To some extent this is true, in that if the supervisors in the parent's jurisdiction were to do a poor job and allow the parent to fold the chances are that the New Zealand subsidiary and certainly a New Zealand branch would fold with it. New Zealand is thus reliant on adequate supervision of the parent. However, this reliance only extends to supervision within New Zealand in a rather limited sense. The Reserve Bank will normally place a lot of stock by the parent's supervisor's views of the standing of the institution and of the bank's compliance with the requirements imposed by the home supervisor. However, if the Reserve Bank were not able to place that reliance it would have to make up its own mind.

However, the success of the system within New Zealand does not rely on external supervision but on the rules for registration, disclosure and crisis management.

Secondly the position would be very different if there were a large number of New Zealand registered banks which were doing substantial business in third markets. In these cases the Reserve Bank would in effect be supervising a parent and it is likely that the nature of disclosure would have to change to take account of substantial overseas operations.

Thirdly, it is worth noting that financial markets in New Zealand are highly developed. Information about financial institutions and those who run them is good. There is fortunately no history of corrupt or suspect behaviour. Where a central bank has far more doubts about the quality of those wishing to run banks or the public lacks confidence then a more intrusive regime and a wider system of guarantees may be appropriate. The nature and adequacy of corporate law, the adequacy of accounting standards, auditing requirements and even the integrity of the accounting profession will all affect the efficiency of a disclosure based regime - as indeed will freedom and ownership of the press. As in so many circumstances this is a matter of weighing up the costs and benefits of the different regimes and there is no reason to expect that precisely the same conclusion will be drawn in each jurisdiction. Where the banking system is largely owned by the state, disclosure may be less meaningful as the implicit guarantees will be substantial. Even so a robust disclosure regime may encourage better risk management.

Furthermore the regulation of the banking sector has to be balanced against the regulation of closely related sectors. If the regulation of banks is too harsh, in relative terms, then some of the task of intermediation undertaken by banks will tend to migrate to less regulated sectors. This migration may itself tend to lessen the stability of both the financial sector as a whole and the banking sector in particular. In New Zealand the whole system of financial regulation has been developing in parallel, with some steps, outside the banking sector, still to be completed.

Lastly, regime changes can always lead to uncertainty. Even if a disclosure based regime might be more effective in the long run, introducing it at a time of fragility in the financial system might be ill advised.

It is also worth noting that while this paper may appear to have focused on systemic risk, this does not mean investor protection is neglected by the New Zealand approach. The absence of any public or private insurance schemes for depositor protection does not mean that depositors are not protected. The system is designed to provide sufficiently strong incentives to prudential management that such schemes are unnecessary. Indeed, it is argued that the presence of such schemes would themselves weaken the incentives and increase the chances of a failure and hence the need to bail out depositors.

Not all jurisdictions might feel that they had the confidence to operate such a scheme. Ultimately the fallout from losses by retail depositors will be political, as they are also electors. As Goodhart (1996b) points out (p. 27) there is one sense in which the contract between depositors and banks differs from that with other transactions. Here one cannot inspect the goods before parting with the money.

The depositors part with their money now in return for the promise of more later under various conditions.

In some respects it is the treatment of deposit insurance which provides the clearest difference between the New Zealand regime and the progress towards greater disclosure occurring in other OECD countries. The New Zealand system does offer a substitute for deposit insurance in that the incentives in the system should encourage more prudent behaviour by the banks and depositors in the first place.

Others (Diamond and Dyvbig 1983, for example) have suggested that the lender of last resort facility to deal with liquidity problems for banks that are basically solvent but faced with a crisis of confidence can act as an alternative to deposit insurance. There it is hoped that the existence of the facility will provide the necessary confidence and that hence runs would not occur in the first place. As with government backed deposit insurance schemes, where the payout can be covered by taxation, no cost is incurred if the facility is not called on. (There are of course severe practical problems in distinguishing between liquidity and solvency problems in a crisis as action has to be swift. The quality of the decisions made will depend upon the accuracy of the knowledge available to the central bank at the time.)

However, comparable economies are not starting from a clean slate. Most have deposit insurance already. It is probably unlikely that countries with deposit insurance would feel inclined to remove it, although changes in form to focus on the depositors with the greatest difficulty in obtaining information on the risks to banks, i.e. small retail depositors, might occur. In no way does this mean that a disclosure regime only makes sense if there is no deposit insurance. All of the other incentives on directors, shareholders and non-insured depositors still apply, as do the incentives for competitors to highlight difficulties - they may have to pick up some of the bill should there be a call on the deposit insurance - and for analysts and the media to search for value and for stories.

In choosing an appropriate regime one needs to balance out the costs. A detailed regulatory regime would impose heavy compliance costs on the participating banks and to this would have to be added the costs of the regulator (which could be charged back to the banks as used to be the case in New Zealand) or financed out of more general taxation (for example through central bank surplus not passed on to the taxpayer). To these costs need to be added two forms of efficiency loss. The first stems from the need to maintain any excess margin against risk but the second relates to the need to resort to higher cost methods of finance outside the banking system. These costs may be not just in terms of direct costs but flexibility as well.

Against this must be offset the increased security of the system as a whole. In so far as the risks are perceived to be lower then this will have a downward effect on borrowing costs. However, the largest cost normally only occurs in the event of failure. These failures are fortunately sufficiently few that it is very difficult to build up a clear assessment of the size of this cost. That cost extends beyond the direct cost, in terms of lost deposits or insurance paid out, to the reputational cost to the system as a whole and higher costs that will be incurred until confidence returns. The higher the protection for banks then the greater the incentive to use other forms of finance and the risk may be transferred rather than reduced.

In the New Zealand case the direct costs are clearly reduced by the new system and efficiency is likely to increase as banks are able to take a more flexible view in assessing risks. The Reserve Bank clearly thinks that the risks of bank failure are also reduced. It is difficult to prove that one way or the other. The absence or occurrence of failure under one regime will only have clear implications for the other if it is possible to point to events which would not otherwise have happened. For example, the supervisor may have detected a problem or the disclosure regime may have led a bank to implement improved procedures which closed an opportunity for a dangerous risk. Such unrecorded events are either unknowable in principle or not publicised in practice. There must, however, be a supposition in favour of the New Zealand changes, suggesting that not merely may the risks have been reduced but the costs reduced as well. In so far as this has implications for investment there could be small 'supply-side' benefits for economic growth as well as the static efficiency gain.

5 Concluding remarks

It is easy to exaggerate the differences between the New Zealand scheme and that in place in many other jurisdictions. One way to view it is that the New Zealand arrangements are a more direct interpretation of the principles that others also espouse, take the Bank of England (1997) 'Standards for Supervisors', for example. Paragraph 4 reads 'We are predisposed to market solutions, and believe in the benefits of fair competition and market disciplines.' The latest Basel Banking Supervision Committee Proposals follow a similar line – 'supervisors should encourage and pursue market discipline by encouraging good corporate governance and enhancing market transparency and surveillance.' (p. 3.) Again on page 4 it suggests 'Supervision cannot, and should not, provide an assurance that banks will not fail. In a market economy failures are part of risk taking.' and on page 10, '*Effective market discipline* depends on an adequate flow of information to market participants, appropriate financial incentives to reward well-managed institutions and arrangements that ensure that investors are not insulated from the consequences of their decisions.'

Sufficiently flexible powers are necessary in order to effect an *efficient resolution of problems in banks*. Where problems are remediable, supervisors will normally seek to identify and implement solutions that fully address their concerns, where they are not, the prompt and orderly exit of institutions that are no longer able to meet supervisory requirements is a necessary part of an efficient financial system. Forbearance, whether or not the result of political pressure, normally leads to worsening problems and higher resolution costs.'

Some prefer to view the New Zealand regime is being, if anything, rather towards one end of a spectrum of possible approaches to banking supervision than representing a complete paradigm shift which others would find it difficult to emulate (Nicholl 1996). What they have done is unwind the process that George (1996) notes – that there is a danger that every time there is a failure of supervision there is a temptation ratchet regulation a notch tighter. There is still an essential role for supervisors to play and the Reserve Bank still thinks it important to publish annual surveys of the banking system in the *Reserve Bank Bulletin* each

June. It is able to flag developments which it can see in the system as a whole which may not appear from the scrutiny of individual disclosure statements. For example, as OECD (1997) put it: 'Caution flags should be raised by the regulatory authorities when financial market participants begin to assemble on the same village green.' p. 38.

New Zealand's experience with the new regime will be studied closely by supervisors in other countries. Subject to the requirements for capital adequacy and depositor protection, there will be considerable incentives for the authorities in the EU countries to increase the role of market disciplines and of public disclosure as increasing cross border operation makes it more difficult for national supervisors to keep track of the operations of large international banks.

Stumbling blocks for the implementation of more disclosure would be posed by the principle of home country supervision as substantial differences in requirements faced could emerge for competitors in the same market. As a result banks might feel encouraged to change the jurisdiction that applies to them. Secondly harmonisation with accounting standards, regulation of the rest of the financial sector and regulators of other aspects of banks' behaviour may be difficult.

Thirdly, substantial changes in legislation may be required if crisis management powers are to be strengthened to make credible the threat that insolvent banks will be allowed to fail and the viable business restructured and transfered (see Liuksila 1997). Implementation of the new regime in New Zealand was greatly facilitated because the Reserve Bank already had all the necessary powers under the 1989 Act. With a small exception (Reserve Bank Amendment Act 1995) new legislation was not required. Registration and crisis management powers were already in place and the disclosure regime could be implemented by Orders-in-Council, without recourse to parliament. However, given that New Zealand already has the necessary legislation and orders in place, other countries have a precedent to follow and could draw up the legislation they need and implement a regime involving more market discipline much more rapidly than in New Zealand, even after allowing time for adequate consultation with the banks.

Table 1. **Disclosure Document**

The National Bank of New Zealand Limited Group

GENERAL SHORT FORM DISCLOSURE STATEMENT

For the three months ended 31 March 1997

GENERAL MATTERS

Name:

The National Bank of New Zealand Limited (referred to in full or as the 'Registered Bank')

Address for service-. 170-186 Featherston Street Wellington

The National Bank of New Zealand Limited was originally incorporated in England under the Companies Act 1862 on 14 August 1872 and further incorporated in New Zealand under The National Bank of New Zealand (Limited) Act 1873. Pursuant to the National Bank of New Zealand Act 1985, The National Bank of New Zealand Limited was deemed to be incorporated under the Companies Act 1955 on 19 June 1985 and pursuant to the National Bank of New Zealand Limited Act 1985 of the United Kingdom, The National Bank of New Zealand Limited ceased to be incorporated in England.

The National Bank of New Zealand Limited was re-registered under the Companies Act 1993 on 20 December 1995.

Ultimate parent bank:
Lloyds Bank Plc
71 Lombard Street
London EC3P 3BS
England

Ultimate holding company:
Lloyds TSB Group plc
71 Lombard Street
London EC3P 3BS
England

CREDIT RATING

The National Bank of New Zealand Limited has undergone credit ratings by Standard & Poor's (Australia) Pty Limited.

There has been no change in the credit ratings in the preceding two years. The latest credit ratings are as follows:

Long term New Zealand dollars	AA-
Subordinated debt New Zealand dollars	A+

Standard & Poor's (Australia) Pty Limited credit rating scale definitions
Long Term Ratings

AAA rated corporations have an extremely strong capacity for timely repayment of debt obligations.

AA rated corporations have a very strong capacity for timely repayment of debt obligations. They differ only from AAA status because margins of protection may not be as large or because protection elements may be subject to greater fluctuation.

A rated corporations have a strong capacity to meet debt obligations in a timely manner. Such corporations may be somewhat more susceptible to adverse changes in their environment, or margins of protection for the lender may be lower than for more highly rated corporations.

BBB rated corporations have a satisfactory capacity to meet debt obligations. Protection levels are more likely to be weakened by adverse changes in circumstances and economic conditions than for borrowers in more highly rated categories.

BB rated corporations' ability to pay interest and repay principal is only adequate and is likely to be affected over time by adverse economic changes.

B rated corporations are not highly protected as to their ability to pay interest and repay principal when due.

CCC rated corporations have poor protection levels. There is uncertainty with regard to the corporation's industry or some other feature of its business. Speculative characteristics exist and debt is not well safe guarded.

CC is typically applied to debt subordinated to senior debt that is assigned an actual or implied CCC rating.

C is assigned where there is a high risk of default, or where default may have occurred.

D rated corporations are in default.

GUARANTORS

There are no guarantees over the material obligations of any member of The National Bank of New Zealand Limited and its subsidiaries (the 'Banking Group').

CONDITIONS OF REGISTRATION

The conditions of registration of The National Bank of New Zealand Limited issued by The Reserve Bank of New Zealand on 1 January 1996 and applying at the date of this General Disclosure Statement are as follows:

(1) That the Banking Group complies with the following requirements:
- Capital of the Banking Group is not less than 8 per cent of risk weighted exposures
- Tier one capital of the Banking Group is not less than 4 per cent of risk weighted exposures.
- Capital of the Banking Group is not less than NZ$15 million.

For the purposes of this condition of registration, capital, tier one capital and risk weighted exposures shall be calculated in accordance with the Reserve Bank of New Zealand document entitled *'Capital Adequacy Framework' (BS2)* dated 1 January 1996.

(2) That the business of the Banking Group consists of, or substantially consists of the borrowing and lending of money, or the provision of other Financial services, or both.

(3) That aggregate credit exposures (net of specific provisions and gross of set-offs) of the Banking Group to all connected persons do not exceed 75 per cent of the Banking Group's tier one capital and that, within this limit, aggregate credit exposures (net of specific provisions and gross of set-offs) to non-bank connected persons do not exceed 15 per cent of the banking Group's tier one capital.

(4) That the board of the Registered Bank contains at least two independent directors. In this context an independent director is a director who is not an employee of the Registered Bank, and who is not a director, trustee or employee of any holding company of the Registered Bank, or any other entity capable of controlling or significantly influencing the Registered Bank.

(5) That the chairperson of The National Bank of New Zealand Limited's board is not an employee of the Registered Bank.

(6) That The National Bank of New Zealand Limited's constitution does not permit The National Bank of New Zealand Limited's directors to act in the interests of any holding company of the Registered Bank, where to do so would conflict with the interests of The National Bank of New Zealand Limited in New Zealand, to the detriment of creditors.

For the purpose of these conditions of registration, the term 'Banking Group' shall mean The National Bank of New Zealand Limited's Financial reporting group (as defined in section 2 (1) of the Financial Reporting Act 1993).

THE DIRECTORS' STATEMENT

The directors of The National Bank of New Zealand Limited after due enquiry by them, as at the date of the Disclosure Statement (comprising the Key Information Summary and this General Disclosure Statement which relates to it), believe that:

(i) The Disclosure Statement contains all the information that is required by the Registered Bank Disclosure Statement (Off-Quarter - New Zealand Incorporated Registered Banks) Order 1995

(ii) The National Bank of New Zealand Limited complies with the conditions of registration after noting the disclosure of excess counterparty exposures set out on page 14

(iii) Credit exposures to connected persons (if any) are not contrary to the interests of the Banking Group.

(iv) The National Bank of New Zealand Limited has systems in place to monitor and control adequately the Banking Group's material risks, including credit risk, concentration of credit risk, interest rate risk, currency risk, equity risk, liquidity risk and other business risks, and that those systems are being properly applied

(v) The Disclosure Statement is not false or misleading as at the date on which the Disclosure Statement is signed.

Signed by or on behalf of all the directors:

P.M. McCAW, SIR JOHN ANDERSON, G.K. ANSELL, D.J. BENNETT, J. CLARKE, J.T. DAVIES, B.R. DICK, B.M.J. DINEEN, N.M.T. GEARY, D.B. PIRRIE, SIR BRIAN PITMAN, SIR DRYDEN SPRING, P.S. STANNARD, W.J. WHINERAY

22 May 1997

The National Bank of New Zealand Limited Group

SHORT FORM FINANCIAL STATEMENTS

Consolidated Statement of Financial Performance

For the three months ended 31 March 1997	Unaudited 31/03/97 3 months $m	Unaudited 31/03/96 3 months $m	Audited 31/12/96 12 months $m
Interest revenue	**401**	374	1,713
Less: Interest expense	**298**	288	1,366
Net interest income	**103**	86	347
Net trading gains	**13**	13	43
Other operating revenue	**37**	42	183
Total income	**153**	141	573
Less: - **Expenses**			
Operating expenses	**97**	100	440
Impaired asset expenses	**4**	1	3
Total expenses	**101**	101	443
Operating surplus before taxation	**52**	40	130
Less: Taxation	**17**	13	33
Operating surplus after taxation	**35**	27	97
Less: Dividend	-		51
Operating surplus after taxation and dividend	**35**	27	46

The National Bank of New Zealand Limited Group
Consolidated Statement of Financial Position

As at 31 March 1997	Unaudited 31/03/97 $m	Unaudited 31/03/96 $m	Audited 31/12/96 $m
Assets employed			
Cash in hand and with central banks	**49**	57	66
Call advances to financial institutions	**262**	57	4
Other central bank securities	**708**	357	996
Other securities held for liquidity and other purposes	**982**	875	496
Equity investment securities	**299**	105	102
Other investment securities	**319**	806	265
Balances with Lloyds TSB Group plc and fellow subsidiaries	**37**	129	25
Loans, advances and lease finance	**14,173**	12,843	13,875
	16,829	15,229	15,829
Current and deferred taxation	**41**	55	57
Premises and equipment	**255**	285	265
Other assets	**554**	1,126	800
Total assets employed	**17,679**	16,695	16,951
Financed by:			
Liabilities			
Deposits and other borrowings	**14,388**	14,482	13,871
Balances with Lloyds TSB Group plc and fellow subsidiaries	**990**	15	563
Other liabilities	**996**	1,089	1,247
Total liabilities	**16,374**	15,586	**15,681**
Dated loan capital	**350**	200	350
Shareholder's equity			
Share capital	**160**	160	160
Revaluation reserve	**14**	33	24
Retained earnings	**771**	716	736
Total shareholder's equity	**955**	909	920
Total liabilities and shareholder's equity	**17,679**	16,695	16,951
Additional financial position information			
Total interest earning and discount bearing assets	**16,718**	15,227	15,700
Total interest and discount bearing liabilities	**14,998**	13,746	14,127

There have been no material changes in accounting policies during the period.

Certain comparative period figures in these financial statements have been amended to reflect changes in classification to reporting which have been made since previous disclosure statements.

The National Bank of New Zealand Limited Group

SUPPLEMENTARY DISCLOSURES

Capital Adequacy
Qualifying capital

	Unaudited 31/03/97 $m	Unaudited 31/03/96 $m	Audited 31/12/96 $m
Tier 1 capital (before deductions)	**895.6**	850.1	895.6
Less: Deductions from Tier 1 capital	-	2.4	14-5
Total Tier 1 capital	**895.6**	847.7	851.1
Upper level Tier 2 capital	**58.8**	62.5	24.2
Lower level Tier 2 capital	**350.0**	200.0	350.0
Total Tier 2 capital	**408.8**	262.5	374.2
Tier 1 capital plus Tier 2 capital	**1,304.4** 1,110.2	1,255-3	
Less: Deductions from total capital	**2.7**	3.2	2.7
Total qualifying capital	**1,301.7**	1,107.0	1,252.6

Risk weighted exposures

1 Calculation of balance sheet exposures

As at 31 March 1997 (Unaudited)	Principal amount $m	Risk weight %	Risk weighted exposure $m
Cash and short term claims on Government	**760.2**	**0**	**-**
Long term claims on Government	**356.1**	**10**	**35.6**
Claims on banks	**1,139.0**	**20**	**227.8**
Claims on public sector entities	**35-9**	**20**	**7.2**
Resident-l mortgages	**5,485.5**	**50**	**2,742.8**
Other	**9,637.9**	**100**	**9,637.9**
Total	**17,414.6**		**12,651.3**
As at 31 March 1996 (Unaudited)			
Cash and short term claims on Government	577.2	0	
Long term claims on Government	637.6	10	63.8
Claims on banks	803.5	20	160.7
Claims on public sector entities	23-5	20	4.7
Residential mortgages	4,544.4	50	2,272.2
Other	9,421.3	100	9,421.3
Total	16,007.5		11,922.7
As at 31 December 1996 (Audited)			
Cash and short term claims on Government	1,068.0	0	-
Long term claims on Government	259.5	10	25.9
Claims on banks	486.4	20	97.3
Claims on public sector entities	42.5	20	8.5
Residential mortgages	5,325.6	50	2,662.8
Other	9,438.3	100	9,438.3
Total	16,620.3		12,232.8

The National Bank of New Zealand Limited Group

Capital Adequacy (continued)

Risk weighted exposures

2 Calculation of off-balance sheet exposures

As at 31 March 1997 (Unaudited)	Principal amount $m	Credit conversion factor %	Credit equivalent amount $m	Average counter-party risk weight	Risk weighted exposure $m
Direct credit substitutes	52-5	100	52.5	100	52.5
Commitments with certain drawdown	529.3	100	529.3	48	252.8
Underwriting and sub-underwriting facilities	171.1	50	85.6	87	74.3
Transaction related contingent items	105.4	50	52.7	100	52.7
Trade related contingent items	161.4	20	32.3	100	32.3
Other commitments to provide financial services which have an original maturity of one year or more	682.5	50	341.3	100	341.3
Other commitments with an original maturity of less than one year or which can be unconditionally cancelled at any time	1,575.6	0	-	100	-
Market related contracts					
Foreign exchange contracts	15,719.6	N/A	508.2	34	171.0
Interest rate contracts	18,847.1	N/A	141.1	31	44.3
Total off-balance sheet exposures					1,021.2
Total risk weighted exposures					13,672.5
As at 31 March 1996 (Unaudited)					
Direct credit substitutes	104.3	100	104.3	100	104.3
Commitments with certain drawdown	1,150.8	100	1,150.8	21	238.6
Underwriting and sub-underwriting facilities	227.2	50	113.6	100	113.6
Transaction related contingent items	106.2	50	53.1	100	53.1
Trade related contingent items	170.0	20	34.0	100	34.0
Other commitments to provide financial services which have an original maturity of one year or more	220.5	50	110.3	100	110.3
Other commitments with an original maturity of less than one year or which can be unconditionally cancelled at any time	3,458.7	0		100	-
Market related contracts					
Foreign exchange contracts	29,494.0	N/A	985.0	32	314.8
Interest rate contracts	30,086.9	N/A	316.4	26	81.2
Total off-balance sheet exposures					1,049.9
Total risk weighted exposures					12,972.6

[1] Current exposure method was used to calculate the credit risk on these contracts

Capital Adequacy (continued)
Risk weighted exposures
• Calculation of off-balance sheet exposures (continued)

As at 31 December 1996 (Audited)	Principal amount $m	Credit conversion factor %	Credit equivalent amount $m	Average counter-party risk weight %	Risk weighted exposure $m
Direct credit substitutes	86.9	100	86.9	100	86.9
Commitments with certain drawdown	371.7	100	371.7	32	117.6
Underwriting and sub-underwriting facilities	203.2	50	101.6	71	72.1
Transaction related contingent items	103.8	50	51.9	100	51.9
Trade related contingent items	163.6	20	32.7	100	32.7
Other commitments to provide financial services which have an original maturity of one year or more	609.0	50	304.5	100	304.5
Other commitments with an original maturity of less than one year or which can be unconditionally cancelled at any time	1,584.4	0		100	-
Market related contracts					
Foreign exchange contracts	16,606.1	N/A	582.1	33	191.6
Interest rate contracts	19,157.3	N/A	143.2	31	44.3
Total off-balance sheet exposures					901.6
Total risk weighted exposures					13,134.4

1 Current exposure method was used to calculate the credit risk on these contracts.

Capital adequacy ratios

	Unaudited 31/03/97 %	Unaudited 31/0396 %	Audited 31/12/96 %
Total tier 1 capital as a percentage of total risk weighted exposures	**6.6**	6.5	6.7
Total qualifying capital as a percentage of total risk weighted exposures	**9.5**	8.5	9.5

The National Bank of New Zealand Limited Group

Asset Quality

	31/03/97			31/03/96		
	Gross	Specific Provisions	Net	Gross	Specific Provisions	Net
Unaudited	$m	$m	$m	$m	$m	$m
Non-accrual assets	**66**	**(45)**	**21**	75	(49)	26
Restructured assets	-	-	-	13	(9)	4
Total impaired assets	**66**	**(45)**	**21**	88	(58)	30

	31/12/96		
	Gross	Specific Provisions	Net
Audited	$m	$m	$m
Non-accrual assets	67	(44)	23
Restructured assets	-	-	-
Total impaired assets	67	(44)	23

Bad and doubtful debt provisions

	31/03/97			31/03/96		
	Non-accrual assets	Restructured assets	Total	Non-accrual assets	Restructured assets	Total
Unaudited	$m	$m	$m	$m	$m	$m
Specific provisions						
Balance at beginning of period	**44**	-	**44**	52	13	65
Advances written off	(3)	-	(3)	(5)	(4)	(9)
Provisions recovered-	-	-				
Charge to statement of financial performance	**4**	-	**4**			
Balance at end of period	**45**	-	**45**	49	9	58
General provision						
Balance at beginning and end of period						2
Total bad and doubtful debt provisions			**45**			60

Asset Quality (continued)

Bad and doubtful debt provisions (continued)

	31/12/96		
	Non-accrual assets	Restructured assets	Total
Audited	$m	$m	$m
Specific provisions			
Balance at beginning of period	52	13	65
Advances written off	(22)	(4)	(26)
Provisions recovered	2	-	2
Charge to statement of financial performance	12	(9)	3
Balance at end of period	44	-	44
General provision			
Balance at beginning of year			2
Provision sold			(2)
Balance at end of year			-
Total bad and doubtful debt provisions			44

Concentration of Credit Exposures to Individual Counterparties

Credit exposure concentration to individual counterparties is disclosed on the basis of actual exposures.

End of day credit exposures – during the three months ended 31 March 1997 for the Banking Group: *(Unaudited)*

	Number of counterparties			
	Bank counterparties		Other counterparties	
Percentage of equity	31/03/97	Peak	31/03/97	Peak
10 % to 19 %	4	1	4	10
20 % to 29 %	-	3	-	1
30 % to 39 %	1	1	-	-
40 % to 49 %	-	1	-	-
50 % to 59 %	-	-	-	-
60 % to 69 %	-	1	-	-

End of day credit exposures – during the three months ended 31 March 1996 for the Banking Group: (Unaudited)

	Number of counterparties			
	Bank counterparties		Other counterparties	
Percentage of equity	31/03/96	Peak	31/03/96	Peak
10 % to 19 %	1	2	7	8
20 % to 29 %	1	1	1	1
30 % to 39 %	1	1	-	-

End of day credit exposures – during the year ended 31 December 1996 for the Banking Group: (Audited)

	Number of counterparties			
	Bank counterparties		Other counterparties	
Percentage of equity	31/12/96	Peak	31/12/96	Peak
10 % to 19 %	2	3	9	12
20 % to 29 %	-	3	1	1
30 % to 39 %	-	1	-	-

Credit Exposures to Connected Persons

Credit exposures to connected persons are disclosed on the basis of actual exposures.

	Unaudited 31/03/97	Unaudited 31/03/96	Unaudited 31/12/96
Credit exposures to connected persons at end of period	$81M	$372M	$76M
Credit exposures to connected persons at end of period as a percentage of total tier 1 capital	9.0 %	43.9 %	8.6 %
Peak credit exposures to connected persons during the period	$203M	$1,025M	$1,025M
Peak credit exposures to connected persons during the period as a percentage of total tier 1 capital	22.7 %	121.0 %	121.0 %

During the year ended 31 December 1996, credit exposure to connected persons exceeded the limit imposed by the Reserve Bank of New Zealand. The exposure was for a short term money market advance to Lloyds Bank Plc and the situation was advised to the Reserve Bank of New Zealand. The peak credit exposure occurred over a weekend period of three days in February 1996. Procedures were introduced at that time to ensure this situation is unlikely to recur.

Exposures to Market Risk *(Unaudited)*

Market risk exposures have been calculated in accordance with clauses l(a), 8(a) and ll(a) of the Eighth Schedule to the Registered Bank Disclosure Statement (Off-Quarter - New Zealand Incorporated Registered Banks) Order 1995, which requires disclosure for the three month period ended 31 March 1997.

The disclosures of market risk exposures are not subject to audit review.

	31/03/97		31/12/96	
Exposures to market risk	Period end	Peak	Period end	Peak
Interest rate exposures				
Aggregate ($m)	38.9	39.4	39.6	106.7
Percentage of equity	4.1	4.1	4.3	11.6
Foreign currency exposures				
Aggregate ($m)	2.7	10.9	4.6	8.9
Percentage of equity	0.3	1.1	0.5	1.0

The Banking Group's holdings of equity instruments is not significant. Comparative information is not readily available for 31 March 1996.

Appendix

Registered Banks as at 30 September 1997

(a) New Zealand Incorporated Banks

Registered Bank	Owner(s)
ANZ Banking Group (New Zealand) Limited	Australia and New Zealand Banking Group Limited
ASB Bank Limited	Commonwealth Bank of Australia (75 %), ASB Community Trust (25 %)
Bank of New Zealand	National Australia Bank Limited
Bankers Trust New Zealand Limited	Bankers Trust New York Corporation
BNZ Finance Limited	National Australia Bank Limited
Countrywide Banking Corporation Limited	Bank of Scotland
The National Bank of New Zealand Limited	Lloyds TSB Group plc
TSB Bank Limited	TSB Community Trust

(b) Overseas Incorporated Banks

Bank of Tokyo-Mitsubishi (Australia) Limited
Banque Indosuez
Banque Nationale de Paris S.A.
Barclays Bank plc
Citibank N.A.
Deutsche Bank A.G.
Hong Kong and Shanghai Banking Corporation
Primary Industry Bank of Australia Limited
Rabobank Nederland
Westpac Banking Corporation
Kookmin Bank

References

Bank of England (1997) **Standards for Supervisors**, The Objectives, Standards and Processes of Banking Supervision, Bank of England, February.

Basel Committee on Banking Supervision (1997) **Core Principles for Effective Banking Supervision.**

Benston, G. - Kaufman, G. (1994) **Improving the FDIC Improvement Act: What was Done and What Still Needs to be Done to Fix the Deposit Insurance Problem.** Ch. 7 in (G. Kaufman, ed.) Reforming Financial Institutions and Markets in the United States, Kluwer.

Brash, D. (1997) **Banking Soundness and the Role of the Market.** Address to the IMF conference on Banking Soundness and Monetary Policy in a World of Global Capital Markets, Washington, 30 January.

Diamond, D.W. (1991) **Monitoring and Reputation: the Choice between Bank Loans and Directly Placed Debt.** Journal of Political Economy, vol. 99, p. 688-721.

Diamond, D.W. (1984) **Financial Intermediation and Delegated Monitoring.** Review of Economic Studies, vol. 51, p. 393-414.

Diamond, D.W. - Dybvig, P.H. (1983) **Bank Runs, Deposit Insurance and Liquidity.** Journal of Political Economy, vol. 91, p. 401-419.

Goodhart, C.A.E. (1996a) **An Incentive Structure for Financial Regulation.** Seminar on The Future of Financial Markets and the Challenges of Supervision, Ministry of Finance and Bank of Finland, Helsinki, p. 67-82 (an earlier version was published in Swiss Journal of Economics and Statistics, vol 132 (4/2), p. 637-648).

Goodhart, C.A.E. (1996b) **Some Regulatory Concerns.** Seminar on The Future of Financial Markets and the Challenges of Supervision, Ministry of Finance and Bank of Finland Helsinki, p. 27-66 (an earlier version was published in Swiss Journal of Economics and Statistics, vol 132 (4/2), p. 613-636).

Harrison, I. (1996) **Disclosure of Registered Banks' Market Risks.** Reserve Bank Bulletin, vol. 59, no. 2, p. 146-154.

Jackson, P. - Maude, D.J. -Perraudin, W. (1996) **Bank Capital and Value-at-Risk.** Mimeo, Birkbeck College London, August.

Kupiec, P.H. - O'Brien, J.M. (1995) **Recent Developments in Bank Capital Regulation of Market Risks.** Federal Reserve Board, November.

Ledingham, P. (1995) **The Review of Bank Supervision Arrangements in New Zealand: the Main Elements in the Debate.** Reserve Bank Bulletin, vol. 58.

Liuksila, A. (1997) **Recent Developments in Bank Reorganization Law Under the EU and EEA Treaties: A Comparison with US Federal Banking and Bankruptcy Laws.** Mimeo.

Mortlock, G. (1996) **Banking Supervision: Placing a New Emphasis on the Role of Bank Directors.** Reserve Bank Bulletin, vol. 59.

Nicholl, P. (1996) **Market Based Regulation.** Paper prepared for the World Bank conference on Preventing Banking Crises, April 15-16.

OECD (1997) **Regulatory Reform in the Financial Services Industry: Where Have We Been? Where Are We Going?** Paris.

Reserve Bank of New Zealand (1995) **Review of Banking Supervision: Reserve Bank's Policy Conclusions.** Reserve Bank Bulletin, vol. 58.

Zodgekar, S. (1996) **New Proposals for Netting and Settlement Finality.** Reserve Bank of New Zealand, August.

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